



HEALTHTECH, AI AND DATA

BRIDGING THE DIVIDE

Parliament & HealthTech Conference

JUNE 2021 | POST-EVENT REPORT



INTUITIVE



KEYNOTE SPEECH

Dr Indra Joshi

Director of AI, NHSX



NHSX Director of AI Indra Joshi began by defining artificial intelligence (AI) in the health and care context as a narrower form of AI than some perceive it to be, that is, goal-oriented, performing programmed tasks to mimic human behaviour in specific ways, carrying out tasks pre-set by a human operator. The aim in future is to shift to more autonomous technology and take the human out of the loop.

NHSX is delivering on its ambition to accelerate the progress of AI-driven technologies by working with a huge number of partners through the £250m NHS AI Lab, launched in 2019. The Lab seeks to enable the development and adoption of safe, ethical, and effective technologies in the UK health and care system, demonstrating the potential of AI, while building confidence in its use and advancing regulation to ensure its safety.

Joshi outlined the Lab's five delivery programmes, including the AI in Health and Care Awards, Skunkworks project, AI Regulatory Programme, AI Ethics Initiative, and the National COVID-19 Chest Imaging Database. The Award, in particular, has seen the evaluation and development of technologies which will help relieve pressures on the system brought about by the pandemic and support the NHS in its recovery.

KEYNOTE SPEECH

Solutions have ranged from the use of natural language processing to provide mental health support to an algorithm that can detect abnormalities in chest X-rays.

She concluded by looking ahead to what is next for the AI Lab. A national AI strategy is being written by the Office of AI and NHSX will be plugging into this with its aligning health and care AI strategy. It will be furthering innovation by launching the third round of the AI Awards, which will support 38 pioneering AI projects and Round 4 of the AI Skunkworks Dragons Den. Moreover it will be expanding its ethical research work with projects on algorithmic bias and building trust in AI with the healthcare workforce, as well as clarifying the regulatory landscape by providing a single route for guidance for AI in the NHS.

WAYS AI IS REVOLUTIONISING HEALTHCARE DELIVERY



An AI chatbot using cognitive behavioural techniques with human expertise to provide mental health support.



CaRi-HEART is an AI platform that analyses cardiac risk from regular CT scans.



The red dot® lung cancer algorithm can identify abnormalities in chest X-rays, enabling greater clinical accuracy and faster, safer diagnosis.



Gives patients access to diagnostic tools by transforming the smartphone camera into a medical device, allowing patients to detect early signs of kidney disease.

PANEL DISCUSSION

FOCUS ON SOLVING SPECIFIC PROBLEMS

While there are great opportunities presented by the use of AI, the focus has shifted onto solving specific problems themselves, and utilising technology to this end. The NHS Long-Term Plan already sets out key challenges and ambitions in health and care, and the pandemic has changed how we look at these ambitions, making them suddenly seem more attainable. AI ought to be harnessed to meet the urgent, real-world patient needs as set out in the LTP. NHSE&I has worked hard on putting the systems, structures, and processes in place to identify where the next best things are coming from and how they can be implemented. For example, NHSE began the Clinical Entrepreneur Programme - an initiative that takes frontline staff that understand the problems and gives them commercial skills, knowledge, and experience to help transform their ideas. This has become the largest workforce entrepreneurial development programme in the world and is a great achievement.



Dame Barbara Hakin
Chair, Health Tech Alliance &
Former Deputy Chief Executive at NHS England



Prof. Tony Young OBE
National Clinical Lead for Innovation
NHS England and NHS Improvement



Hassan Chaudhury
Digital Health Lead
Healthcare UK - Department for International Trade



Eleanora Harwich
Head of Collaborations, AI Lab
NHSX



Brian Miller
Chief Digital Officer
Intuitive



Tim Skinner
Director Public Sector
NetApp

PANEL DISCUSSION

AI IMPACT ON PATIENTS AND PATHWAYS

The pandemic has exacerbated existing problems in the system, with an increasing backlog we need to find novel ways of seeing patients faster and doing more with the current workforce, as well as achieving goals set out in the Long-Term Plan, all without affecting quality of care. AI is already helping the system in this endeavour, transforming the delivery of care by helping doctors make crucial decisions which impact patient outcomes, in turn helping the NHS become more productive and improving quality of care patients receive.

DATA-DRIVEN INSIGHTS TO DRIVE BETTER CARE & ALLEVIATE SYSTEM PRESSURES

Data-driven technology is vital to confront the prevailing pressures on the system. Combining different datasets can begin to create useful insights and drive better care delivery, with AI playing a role in analysing data and getting the right information to the right people in a timely manner. It is crucial to tackle privacy and security concerns to gain patient confidence and ultimately enable data sharing. NHSX's recent draft data strategy goes some way to giving patients greater assurance about how their data going to be used within the system.



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PANEL DISCUSSION

THE UK AS A GLOBAL HUB FOR HEALTHTECH BUSINESSES

On the whole the UK is receiving more interest than ever with digital health companies of all sizes around the world are choosing to base themselves here. While some do come with questions of Brexit, medical device regulation, and the divergence between UK and EU, they recognise the UK still has much to offer, and a great deal of these companies eventually land. However, challenges persist; European states are offering benefits which are hard to compete with, including money and support in the form of bursaries and tax incentives. Moreover, once innovators come in, the Department for International Trade struggles to hand them to parts of the system, which are already swamped and cannot take them on. AHSNs are speaking to a vast number of digital health companies, all requiring help to get into the system and only those with the best evidence and most novel solutions do well. There is a great imbalance between supply of digital health and demand, and to tackle this we need more test beds, more places for pilots, and more 'champions' to come forward.



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HEALTHTECH 2025: THE VISION AHEAD

14TH OCTOBER, 2PM-3.30PM



Our third Conference of 2021 will bring together stakeholders from the entire spectrum of health and social care to:

- Reflect on the positive changes seen in the innovation landscape over the year and, hopefully, in addressing the patient backlog as well as the challenges of the next phase of the NHS recovery.
- Set a direction for travel for innovation policy between now and 2025.
- Explore how Government, policymakers, the NHS, the wider health system, and industry can realise the longer-term vision for HealthTech innovation policy.

BOOK YOUR
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KEYNOTE SPEAKER: RT HON JEREMY HUNT MP

We are delighted to announce that the Rt Hon Jeremy Hunt MP, Chair of the Health and Social Care Committee and former long-serving Health Secretary, will deliver the keynote speech at our final Conference of the 2021 series.

Since he was elected Committee Chair in January 2020, Jeremy has been at the forefront of challenging the Government on its handling of crucial health and care priorities of the day, at arguably the most challenging period in the history of the health service, including holding No10 to account on its COVID-19 response, NHS reform, social care, and patient safety matters.

We look forward to hearing his unique perspective on the vision ahead for the health service.



HEALTH TECH ALLIANCE



OUR OBJECTIVES

The Health Tech Alliance is a coalition of health technology companies and stakeholders from across the NHS and wider health system. Our three ambitions:

- **Accelerate innovation:** Address the current market access and reimbursement obstacles that limit the take up of innovation
- **Drive collaboration:** We work with the NHS to find tangible solutions to the current healthcare challenges.
- **Improve outcomes:** Drive up the adoption of health technologies, devices and diagnostics that are proven to benefit patient outcomes and deliver cost savings to the NHS.



Dame Barbara Hakin
 Chair, Health Tech Alliance &
 Former Deputy Chief Executive at NHS England

OUR MEMBERS

JOIN US!



BD

BD is a global medical technology company that is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. BD leads in patient and health care worker safety and the technologies that enable medical research and clinical laboratories.

The company provides innovative solutions that help advance medical research and genomics, enhance the diagnosis of infectious disease and cancer, improve medication management, promote infection prevention, equip surgical and interventional procedures and support the management of diabetes.

BD has more than 65,000 associates across 50 countries who work in close collaboration with customers and partners to help enhance outcomes, lower health care delivery costs, increase efficiencies, improve health care safety and expand access to health.

ADVANCING THE WORLD OF HEALTH

ACHIEVEMENTS IN LEVERAGING AI & DATA- DRIVEN TECHNOLOGIES

Click here to learn about a multi-disciplinary infection prevention strategy with BD surveillance at Robert Wood Johnson Hospital in Hamilton, New Jersey.

The development of automated surveillance and data mining systems in recent years has made the prospect of hospitalwide surveillance of healthcare-associated infections (HAIS) both realistic and highly effective for hospitals of all sizes.

EDWARDS LIFESCIENCES

With more than 50 years of experience, we have grown into a global company, with a presence in approximately 100 countries and approximately 8,500 employees around the world. Each one of them is dedicated to furthering Edwards' original vision to help clinicians, patients and their families work together as a united community fighting cardiovascular disease and critical illnesses.

“EDWARDS LIFESCIENCES IS THE GLOBAL LEADER IN PATIENT-FOCUSED MEDICAL INNOVATIONS FOR STRUCTURAL HEART DISEASE, AS WELL AS CRITICAL CARE AND SURGICAL MONITORING.”

ACHIEVEMENTS IN LEVERAGING AI & DATA-DRIVEN TECHNOLOGIES

Click here and discover how the Acumen Hypotension Prediction Index (HPI) software, a first-of-its-kind technology using AI, provides with information regarding the likelihood of a patient trending toward a hypotensive event.

Acumen IQ sensor

Minimally-invasive predictive decision support



INTUITIVE

Intuitive is the pioneer of robotic-assisted surgery and a global technology leader in minimally invasive care, headquartered in the UK at the Oxford Science Park.

Intuitive brings more than two decades of leadership in robotic-assisted surgical technology and solutions to its offerings, and develops, manufactures, and markets the da Vinci surgical system and the Ion endoluminal system.

The company's da Vinci surgical system was the first robotic-assisted minimally invasive surgical system to be cleared in the United States and is available in more than 60 countries.

“
 WE BELIEVE THAT MINIMALLY
 INVASIVE CARE IS LIFE-ENHANCING
 CARE. THROUGH INGENUITY AND
 INTELLIGENT TECHNOLOGY, WE
 EXPAND THE POTENTIAL OF
 PHYSICIANS TO HEAL WITHOUT
 CONSTRAINTS
 ”

ACHIEVEMENTS IN LEVERAGING AI & DATA- DRIVEN TECHNOLOGIES

Click here to read more about how Intuitive is providing innovative solutions to the NHS to continue to tackle the surgical backlog and expand access so that more patients can benefit from minimally invasive da Vinci robotic-assisted surgery.

8.5
 million+

Procedures completed using da Vinci systems worldwide through 2020

25.4
 seconds

How often a surgeon starts a procedure using a da Vinci system

NETAPP

NetApp is a cloud-led, data-centric software company dedicated to helping organisations securely drive insights from their data wherever it resides.

Our cloud services and storage systems combined with our application-driven infrastructure approach allows us to help organisations truly drive insight and value from their data.

Organisations everywhere can securely develop and run their critical applications from a combination of the data center or cloud while continuously reducing cost and optimising performance.

SPEED THE DISCOVERY OF LIFE-CHANGING TREATMENTS WITH FASTER AND MORE DYNAMIC DATA ACCESSIBILITY.

ACHIEVEMENTS IN LEVERAGING AI & DATA-DRIVEN TECHNOLOGIES

Click [here](#) to discover how AstraZeneca, by partnering with NetApp, is speeding the discovery process for life-saving treatments. That's largely because researchers can access the data they need, when they need it. This is thanks to an updated data strategy, one based on hybrid, multi-cloud computing and the dynamic movement of data.

